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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/722,798

11/26/2003

Jack Chen

M319

8228

30406

7590

10/19/2005

ROBERT L. MARSH

54 DANADA DRIVE

P.O. BOX 4468

WHEATON, IL 60187-4468

EXAMINER

MCCLLOUD, RENATA D

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 10/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

212

Office Action Summary	Application No.		Applicant(s)	
	10/722,798		CHEN ET AL.	
	Examiner		Art Unit	
	Renata McCloud		2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/26/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show: (a) (34) on (24D-F) as described on page 6, 3rd paragraph of the specification; (b) (54) connected to all of the contacts (34); (c) (56) connected to all of the contacts (34).

Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "40" has been used to designate both "second pole" (see page 8 of the spec) and "second connector" (see page 7 of the spec.). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: a "switch having a first contact, a second contact" and "first connectors" are not recited in the specification.

Claim Objections

4. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims

are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 1 been renumbered 5.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-6 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claims 1 and 3 recite the limitations "said connector", "said first connectors", "said second connectors, and said controller in lines 7-9. There is insufficient antecedent basis for these limitations in the claim.

Also the limitation "said first connectors" is unclear being that it is not described in the specification.

8. Claim 5 recites the limitation "said switch " in the second paragraph, and "said switches" in the 4th paragraph. There is insufficient antecedent basis for these limitations in the claim. It is unclear which switch is being referred to.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Heiman (US 4458187).

Claims 1,3: A control for controlling a plurality of motors (fig. 3:A101, 102) for stopping said motors at a home orientation wherein each of said motors has a first contact, a second contact, and an output shaft, said plurality of motors being configured in a grid having columns and rows (fig 3:Rows 1-8, cols 1-10) with said first contacts (fig 3: "+" side) of all of said motors in one of said column connected in parallel and said second contacts ("- side) of all of said motors in one row connected in parallel, wherein one of said plurality of motors in a first column and in a first row is energized by directing electric power across a connector connecting first column and said connector connecting said first row, said controller comprising a switch (s101,s201) on each of said plurality of motors, said switch having a first contact, a second contact, an open position, and a closed position, means on said output shaft for actuating said switch when said shaft is at said home orientation (col. 2:54-3:13), for each one of said motors, said first contact of said switch (top of s101)connected to said first contact (+ side of s101) of said motor, means for detecting a change in electric potential (330), and said second contact of said switches (bottom of s101) of said first row (row 1) of said plurality

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of motors connected in parallel and connected to said means for detecting a change in electric potential (330) wherein said means for detecting will detect a change in potential when said shaft of said one of said motors rotates to its said home orientation (col. 5:15-30).

Claims 2,4: means (a diode) in series with the switch for preventing reverse current (col. 5:3-14).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 5,6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heiman in view of Levasseur (US4284208).

Claim 5: Heiman teaches a control for controlling a plurality of motors (fig. 2:A101, 102) for stopping said motors at a home orientation wherein each of said motors has a first contact, a second contact, and an output shaft, said plurality of motors being configured in a grid having columns and rows (fig 2:Rows 1-8, cols 1-10) with said first contacts (fig 2: "+" side) of all of said motors in one of said column connected in parallel wherein the first contacts are connected through a switch (371) to a source (335) and said second contacts ("- side) of all of said motors in one row connected through a switch (371) to a source wherein one of said plurality of motors in a first column and in a first row is energized by directing electric power across a connector

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connecting first column and said connector connecting said first row, said controller comprising a switch (s101,s201) on each of said plurality of motors, said switch having a first contact, a second contact, an open position, and a closed position, means on said output shaft for actuating said switch when said shaft is at said home orientation (col. 2:54-3:13), for each one of said motors, said first contact of said switch (top of s101) connected to said first contact (+ side of s101) of said motor, means for detecting a change in electric potential (330), and said second contact of said switches (bottom of s101) of said first row (row 1) of said plurality of motors connected in parallel and connected to said means for detecting a change in electric potential (330) wherein said means for detecting will detect a change in potential when said shaft of said one of said motors rotates to its said home orientation (col. 5:15-30). Heiman does not teach separate first and second switches connecting to first and second poles of the power source. Levasseur teaches motors in one column connected in parallel wherein the first contacts (top of the motor) are connected through a first switch (fig. 2:102A) to a first pole (+) of a source and said second contacts (bottom of the motor) of all of said motors in one row connected through a second switch (112A) to a second pole (-) of the source. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus taught by Heiman to use a second switch as taught by Levasseur in order to energize particular columns and rows of motors.

Claim 6: Heiman teaches means (a diode) in series with the switch for preventing reverse current (col. 5:3-14). Levasseur also teaches means (a diode) in series with the switch for preventing reverse current (col. 4:25-33).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Renata McCloud whose telephone number is (571) 272-2069. The examiner can normally be reached on Mon.- Fri. from 8 am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (571) 272-2800 ext. 4. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Renata McCloud
Examiner
Art Unit 2837

RDM


MARLON T. FLETCHER
PRIMARY EXAMINER